

REMARKS

This communication is in response to the Office Action mailed January 25, 2008 in which claims 1-16 were pending.

Claim Rejections – 35 U.S.C. § 112

Claims 8-16 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

Independent claims 8 and 12 both recite a mutual information score that is calculated as a function of a likelihood that phones in a phonetic fragment occur consecutively and a likelihood that each phone in the phonetic fragment occurs independent of other phones in the phonetic fragment. As pointed out in the Office Action, an equation for calculating the mutual information score is provided on page 11 of the Specification. This equation includes a joint probability value, $P(v,w)$ as well as independent probability values, $P(v)$ and $P(w)$. These probability values refer to the likelihood that the phones occur consecutively ($P(v,w)$) as well as the probability that the phones occur independently ($P(v)$ and $P(w)$). While the Office Action notes that this equation shows, at most, that the mutual information is defined as a function of a joint probability between adjacent phones and the probabilities of each of the two phones, it is submitted that $P(v,w)$ defines a likelihood that phones v and w occur consecutively and $P(v)$ and $P(w)$ define a likelihood that phones v and w appear independently. Thus, Applicants submit that there is adequate support in the Specification for the claimed features of independent claims 8 and 12. As such, claims 8-16 are believed to be allowable.

Claim Rejections – 35 U.S.C. § 103

Claims 1-7 were rejected under 35 U.S.C. 103(a) as being unpatentable over James et al. ("A Fast Lattice-Based Approach to Vocabulary Independent Wordspotting," Proc. ICASSP, Adelaide, 1994, hereinafter "James") in view of Schalkwyk et al. (U.S. Publ. 2003/0009331, hereinafter "Schalkwyk").

Independent claim 1 recites utilizing a grammar corresponding to pronunciation

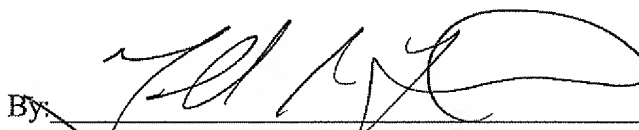
alternatives as a query. The Office Action correctly notes that James does not disclose utilizing a grammar as a query. The Office Action cites Schalkwyk as representing words with alternative sequences of phonemes. While Schalkwyk discloses a grammar that represents alternative sequences, this grammar is simply not used for searching a phonetic lattice. Instead, the grammar in Schalkwyk is simply utilized for determining if an utterance is approximated by the grammar (see paragraph [0006]). The Office Action has provided no evidence to support the use of a grammar as a query. In contrast, the claimed invention of claim 1 provides a fast searching mechanism for which to provide recognition by utilizing a grammar as a search query. Thus, independent claim 1 and dependent claims 2-7 are believed to be allowable.

It is therefore respectfully submitted that claims 1-16 are in form for allowance. Reconsideration and allowance of the claims is respectfully requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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